

HAZARDOUS Room, Duct & Immersion Thermistor

The ACI Hazardous Thermistor Series features a 1/2" NPT Process threaded fitting and 1/4" diameter stainless steel probe with two, 22 AWG Etched Teflon colored lead wires to differentiate the different NTC sensor types. The sensors in this series are manufactured using ACI's proven double encapsulation process to eliminate the effects of moisture upon the sensors and to increase response times using our high quality, thermally conductive epoxy. The Hazardous sensors come standard with a heavy duty Feraloy® Iron or Aluminum Connection Head depending on the configuration ordered. These sensors can be used in Wall Mounted (Room), Duct, and Immersion style configurations and include an O-Ring Seal, Green Ground Screw, and weather resistant finish. The "INW" Immersion sensor without thermowell can be used with an existing thermowell or paired with any of the Machined thermowells (See

Accessories) when higher flow rates, temperatures, pressure rating or corrosion resistance is required. NIST Certificates are available as shown in the ordering grid on the back of the product data sheet. This product should be installed by a trained professional with knowledge of local codes and regulations.

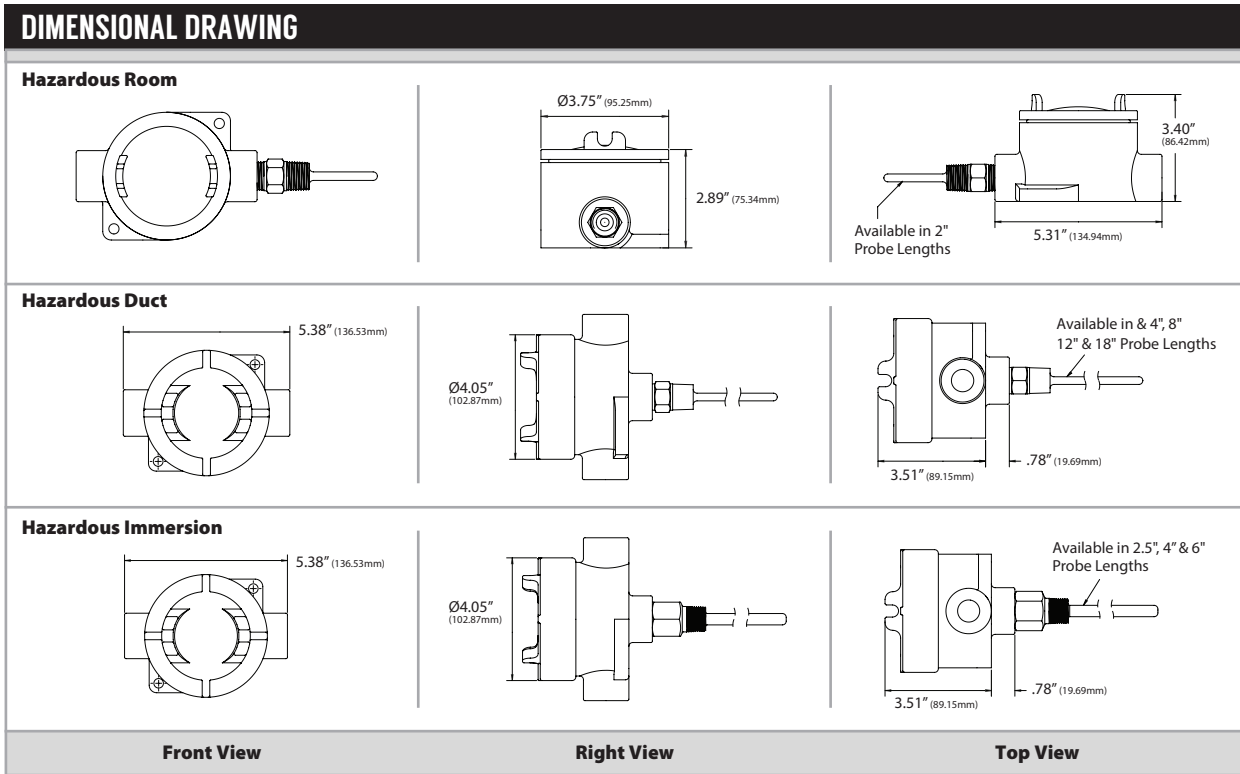
Applications: Hazardous Atmospheres, Industrial Sensor Applications, Process control, Exhaust Systems

The ACI Hazardous Thermistor Series is covered by ACI's Five (5) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, www.workaci.com.

PRODUCT SPECIFICATIONS

Sensor Type Sensor Curve	Thermistor Non-Linear, NTC (Negative Temperature Coefficient)
Sensing Points Number Wires:	One Two (Non-Polarity Sensitive)
Sensor Output @ 25°C (77°F) Lead Wire Colors:	A/AN (Type III): 10KΩ nominal White/White A/1.8K: 1.8KΩ nominal Red/Yellow A/CP (Type II): 10KΩ nominal White/Green A/3K: 3KΩ nominal White/Brown A/CP-HT (Type II): 10KΩ nominal White/Green A/20K: 20KΩ nominal Brown/Blue A/10K-E1: 10KΩ nominal Gray/Orange
Accuracy 0-70°C (32-158°F):	+/-0.2°C (+/-0.36°F) except A/10K-E1 Series: +/- 0.3°C (+/-0.54°F) A/1.8K Series: +/-0.5°C @ 25°C (77°F) and (+/-1.0°C) (+/-1.8°F)
Accuracy 25°C (77°F):	A/CP-HT: +/- 1%
Stability:	Sensor Dependent; Contact ACI for more information on specific sensor
Response Time (63% Step Change):	10 Seconds nominal
Power Dissipation Constant:	3 mW/°C except A/1.8K Series: 1 mW/°C A/10K-E1 and A/CP-HT Series: 2 mW/°C
Enclosure Specifications (Temperature, NEMA Ratings):	"-D" Enclosure: Feraloy® Iron Alloy, -50 to 60°C (-58 to 140°F), NEMA 3, 4, 7ABCD, 9EFG "-I or -INW" Enclosure: Feraloy® Iron Alloy, -50 to 60°C (-58 to 140°F), NEMA 3, 4, 7ABCD, 9EFG "-R" Enclosure: Copper-Free Aluminum, -50 to 60°C (-58 to 140°F), NEMA 3, 4, 7ABCD, 9EFG
Enclosure Explosion Proof Rating:	CL I, Div. 1 & 2, Groups A, B, C, D
Enclosure Dust-Ignition Proof Rating:	CL II, Div. 1, Groups E, F, G
Enclosure Raintight Rating:	CL II, Div. 2, Groups F, G
Enclosure Wet Locations Rating:	CL III
Enclosure UL CSA Standards:	UL 1203 CSA C22.2 No. 30
Sensor Operating Temperature Range:	-40 to 150°C (-40 to 302°F) A/CP-HT: -40 to 200°C (-40 to 392°F)
Storage Temperature Range:	-40 to 85°C (-40 to 185°F)
Operating Humidity Range:	10 to 95% RH, non-condensing
Enclosure Hubs Hub Size:	Two 1/2" NPT Female Hubs
Probe Diameter Sensor Threads:	0.250" (6.35mm) 1/2" NPT (National Pipe Tapered) Thread
Probe Material:	304 Stainless Steel
Thermowell Material Bore Diameter:	304 Stainless Steel 0.260"
Thermowell Instrument Thread Process Thread:	1/2" NPS (National Pipe Straight) Female Thread 1/2" NPT (National Pipe Tapered) Male Thread
Lead Length Conductor Size:	14" (35.6 cm) or 24" (61 cm) 22 AWG (0.65mm)
Lead Wire Insulation Wire Rating:	Etched Teflon (PTFE) Colored Leads Mil Spec 16878/4 Type E
Conductor Material:	Silver Plated Copper
Product Dimensions Product Weight:	See table on back of Product Data sheet
Agency Approvals:	CE, RoHS2, WEEE





HAZARDOUS ROOM ORDERING		Model # Example: A/ 1.8K R EXPL NIST	MODEL #
		A. B. C. D. E.	
A. Sensor Series No Selection Required	A/ →		A/
B. Model Series Select One (1)	1.8K 3K AN CP CP-HT 10K-E1 20K		
C. Configuration No Selection Required	R = Room →		R
D. Sensor Model No Selection Required	EXPL = Hazardous Sensor →		EXPL
E. NIST Select One (1)	---- = No NIST Certificate NIST = NIST Certificate (Must Specify 1, 3 or 5 Points)		

HAZARDOUS DUCT ORDERING		Model # Example: A/ 1.8K D 4" EXPL NIST	MODEL #
		A. B. C. D. E. F.	
A. Sensor Series No Selection Required	A/ →		A/
B. Model Series Select One (1)	1.8K 3K AN CP CP-HT 10K-E1 20K		
C. Configuration No Selection Required	D = Duct →		D
D. Duct Probe Length Select One (1)	4" = Duct 4" 8" = Duct 8" 12" = Duct 12" 18" = Duct 18"		
E. Sensor Model No Selection Required	EXPL = Hazardous Sensor →		EXPL
F. NIST Select One (1)	---- = No NIST Certificate NIST = NIST Certificate (Must Specify 1, 3 or 5 Points)		

HAZARDOUS IMMERSION ORDERING		Model # Example: A/ 3K I 4" EXPL NIST	MODEL #
		A. B. C. D. E. F.	
A. Sensor Series No Selection Required	A/ →		A/
B. Model Series Select One (1)	1.8K 3K AN CP CP-HT 10K-E1 20K		
C. Configuration Select One (1)	I = Immersion with Welded Thermowell INW = Immersion without Welded Thermowell		
D. Immersion Probe Length Select One (1)	2.5" = Immersion 2.5" 4" = Immersion 4" 6" = Immersion 6"		
E. Sensor Model No Selection Required	EXPL = Hazardous Sensor →		EXPL
F. NIST Select One (1)	---- = No NIST Certificate NIST = NIST Certificate (Must Specify 1, 3 or 5 Points)		

